

**MESH WITH PROTECTION CHANNEL ACCESS (MPCA)**

John C. Adler

**ABSTRACT OF THE DISCLOSURE**

5           A method for a communications network with a protect channel transmitting protect channel data and working channel transmitting working channel data includes transmitting the working channel data via the protect channel upon a disruption in the working channel, and restoring the transmitting of protect channel data, wherein the restoring includes applying a mesh restoration protocol to the communications

10 network to restore the transmittal of the protect channel data. The restoring includes finding one or more alternate channels to transmit the protect channel data, the one or more alternate channels including connected working and protect channels. An apparatus disposed in a communication network having a protect channel and a

15 working channel includes a node controller, a route processor coupled to the node controller, the route processor implementing a mesh restoration protocol, and a circuit coupled to the node controller and the route processor, the circuit including a logic gate for receiving signals identifying disruptions in transmissions in the protect channel and the working channel and a switch responsive to the signals identifying disruptions in transmissions in the protect channel and the working channel, the

20 switch communicating with the route processor to implement mesh restoration of protect channel data. In one embodiment, the circuit is coupled to at least one line card, the line card transmitting the signals identifying disruptions in transmissions in the protect channel and the working channel. The circuit further includes an

25 input/output circuit for receiving instructions identifying criteria for applying mesh restoration to protect channel data.